Work Orde September-27-13	r <b>ID 107662</b> 1:08:31 PM			*107	7662*						Page 1
Revision ID:	646.3715 Strut Doubler			Accept	*N900	040	100	<b>)*</b> s	etup Stai	IV	S1* S2*
Start Date:  Required Date:  Reference:	_	ty: 5.00 Qty: 5.00	*5* *5*	*8*	Cust Item ! Customer:						
Approvals:	Process Plan:QC:		Date: _/3-0-9			eate:		R	tun Star Sto	n	R1* R2*
Sequence ID/ Work Center ID	Operation Descript			Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr	•									
646.3700	Α ′										
*110*				0.00				8	0		Ac
Waterjet FLOW CNC Waterje	t	Memo 1-Cut as per Dwg Rev: Prog Rev:	A	0.00							(3.11.6
120	002 1	2-Deburr if		0.00							
*120 *120* QC	QC2- Insp	Memo	achine FAI/FAIB	0.00				8	0		<u>Au</u> 13,11.0

Quality Control

											DQA:	Date:	<u> </u>
NCR:	Yes	/ No				WORK ORDER NON-C	100	NFOR	MANCE / UP	DATE			
											QA Closed:	Date:	
Work Orde	∍r·					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part I	No.					Rework Scrap Use-as-is Work Order Update		Thern	Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update		Initial	Ac	tion	Sign &		
Cause		Date	Step	Qty	C	or Non-conformance	Ch	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved					·	·		-					
						F	AUL	T CATE	GORY				
Landi		iear Bending				General Bend		Grain			10 11 1		J. (5. )
	$\vdash$	Centre No	nt Cancar	ntric to	_/s	BOM/Route	$\vdash$	Hardwa	ro		Ovalized Over/Under	toloranco	Pressure/Forced
	$\vdash$	Cracks	or concer	itire to	5/3 <del> </del>	Broken/Damaged		1	on Incomplete		Part Incorre	<b> </b>	Temperature/Cure Weld
		Crushed/0	Crimped.			Burrs		Instruct	ions Incomplete/	Unclear	Part Lost/M	issing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved		-
		Heat Trea	t			Countersink		Mislabe	eled		Positioned V	Vrong	
		Inspection	n Strip in	Tube		Cut Too Short		Misread	ł		Power Loss/	Surge	Other
		Ripples in	Bend			Drill Holes		Offset		•	-	<u> </u>	

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde				*107662*									
Item ID: Revision ID: Item Name:	646.3715 Strut Doubler		<b>4 F 4</b>	Accept *	N9NN		100	)*	Setup Star Stoj	I VI	S1* S2*		
Start Date: Required Date: Reference:	9/27/13 : 9/27/13	Start Qty: 5.00 Req'd Qty: 5.00	*5* *5*		Cust Item I Customer:	D:	_	,	Run Stai	rt .L.s. s	D 4 +		
Approvals:		ın:	Date:	Tooling:		ate: ate:			Sto	1/7	R1* R2*		
Sequence ID/ Work Center I 130 *130* QC Quality Control	D	Operation Description QC8- Inspect parts - sec	ond check	Set Up/ Run Hours 0.00 DAS 0.00 27 0.00 3 989 04	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp		
*140 * Outsource4 Outsource process	- Anodize	Memo Issue P/O to 1- Black A	DATG: 21915  anodize as per Dwg 646.37					C	L 1314	1/06	<u> </u>		

150

Receive & Inspect for Damage & Mat'l Certs

Certification of Comformity is required

0.00

\*150\* Packaging

Memo

0.00

Packaging

[43/4/22 8)

NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE

OA Closed: Date:

DQA: \_\_\_\_\_Date: \_\_\_\_\_\_

OA Closed: Date:

											QA Closed:	Date	
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part f	•	,				Rework Scrap Use-as-is		Thern	Skid-tube  Machining  noforming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCK	NO.					Work Order Update	J		Large Fab	Composite	J	Supplier	
Root Cause		Date	Step	Qty		ption of work order update	1	itial ef Eng		tion cription	Sign & Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved								,					
опарртотеа			1	<u> </u>		F	AULT	CATE	GORY		1	L	.1
Landi	ng (	Gear	-			General					_		
		Bending Centre No Cracks Crushed/G Cuffs	Crimped.		o/s	Bend BOM/Route Broken/Damaged Burrs Contamination		nstruct Mainte	on Incomplete ions Incomplete/ enance	'Unclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved	ct	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
	_	Heat Trea		<b>-</b> .		Countersink	$\vdash$	Mislabe		<u> </u>	Positioned V		<b>¬</b>
	_	Inspection	•	Tube	_	Cut Too Short		Misread	1	<u>L</u>	Power Loss/	Surge	Other
		Ripples in Torque W		vtrucio	<u>,</u>	Drill Holes Drawing	-	Offset	Calibration		- · · · · · · · · · · · · · · · · · · ·		
		Turning S			' <u> </u>	Finish	$\boldsymbol{\vdash}$		Sequence				
	H	Wave/Tw	•			Folio	$\vdash$		Dimensions				

Work Ord September-27-				*107	'662*		440		Page 3		
Item ID: Revision ID: Item Name:	646.3715 Strut Double	er		Accept	*N900	<b>040</b>	100	)*	Setup Star	1.7	S1* S2*
Start Date: Required Dat Reference:	9/27/13 e: 9/27/13	Start Qty: 5.00 Req'd Qty: 5.00	*5* *5*		Cust Item I Customer:	D:			D. Sker	4 -	
Approvals:	Process P	lan:	Date:	Tooling:  SPC (Y/N):		nte:		J	Run Stai Sto	"   <b>\</b>	R1* R2*
Sequence ID/ Work Center 160 *160*	ID	Operation Description QC5- Inspect part compl	eteness to step on W/O	Set Up/ Run Houps 0.00 27 9-80	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp

Identify as per dwg & Stock Location: 57 523  $\theta_{0.00}$ 

\*190\*

Quality Control

Packaging

Packaging

Memo

\*\*\*IDENTIFY AS PER APICAL MPP-120 BY STAMPING THE P# AND

REV\*\*\*

QC21- Final Inspection - Work Order Release

0.00

0.00

\*200\*

Quality Control

Memo

0.00

Am 13/11/25 MF 13-11-25

												DQA:	Da	te:	
NCR:	Yes	/ No				<b>WORK ORDER NON-C</b>	100	NFORM	MANCE / UP	DATE					
									·		QA	Closed:	Da	te:	
Work Ord	er:					DISPOSITION				AGAINST DE	PAR	TMENT	/PROCESS		
Part I	1 1 1 1					Work Order Update Large Fab Composite				}	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier			Engineering Quality Other	
Root			-		Descri	ption of work order update	Π	Initial	Act	tion	Si	gn &			
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Desc	ription		Date	Verificatio	n	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved															
						F	AUL	T CATE	GORY						
Landi						General		1 <sub>0</sub> .			¬				1
	-	Bending			0/6	Bend BOAA/Bassas	-	Grain		-	<b>⊣</b>	lized		-	Pressure/Forced
	-	Centre No Cracks	ot Concer	ntric to	U/S	BOM/Route		Hardwa		_	-1		tolerance	$\vdash$	Temperature/Cure
	Н	Crushed/0	Crimpod		-	Broken/Damaged Burrs	$\vdash$	1	on Incomplete	[Jackson	-	Incorre		$\vdash$	Weld
	${f}$	Cuffs	cimpea.			Contamination	-	Mainte	ions Incomplete/	Unclear		: Lost/M : Moved	-	L	Wrong Stock Pulled
	-	Heat Trea	t			Countersink	$\vdash$	Mislabe		-	<b>⊣</b> i	itioned V			
		Inspection		Tube		Cut Too Short	$\vdash$	Misread		<u> </u>	┥	er Loss/	=	Γ	Other
		Ripples in	-			Drill Holes		Offset	•	<u>L</u>	۰۵٬۵۷	, C1 LU33/	Jul 8c		Jorden

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Page 1

Work Order ID:

107662

Parent Item:

646.3715

Parent Item Name:

Strut Doubler

**Start Date:** 9/27/13

Required Date: 9/27/13

Start Qty: 5.00

Required Qty: 5.00

Comments:

IPP REV:A 12.10.22 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.040 6061-T6 .040 Sheet		Purchased	No			110	sf	452.0760	0.0434	_ <del>0.228</del> 421	Je.	(3	11.5
				<b>Location</b>		Loc Oty	<u>Lo</u>	c Code					
				MAT021		452.076						•	()
				m1263	350	260.076			12	-635 U	·	کی -	3

192

m126981

NCR:	Yes	/ No				WORK ORDER NON-O	100	NFORM	ANCE / UP	DATE			
											QA Closed:	Date	2:
Work Orde	er:					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
Part N	- No. <sub>-</sub>					Rework Scrap Use-as-is Work Order Update		f Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	Pro	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update		Initial	Ac	tion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
Landi	C		<u> </u>		<del> </del>		AUL	T CATE	JORY				
Landi		Bending Centre No Cracks Crushed/G Cuffs Heat Trea Inspection Ripples in	Crimped t n Strip in Bend	Tube		General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instruct Mainte Mislabe Misreac Offset	on Incomplete ions Incomplete/ nance led	Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V Power Loss/	ct issing Wrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
		Torque W	aves in E	xtrusio	ո 📙	Drawing		Out of C	Calibration				

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

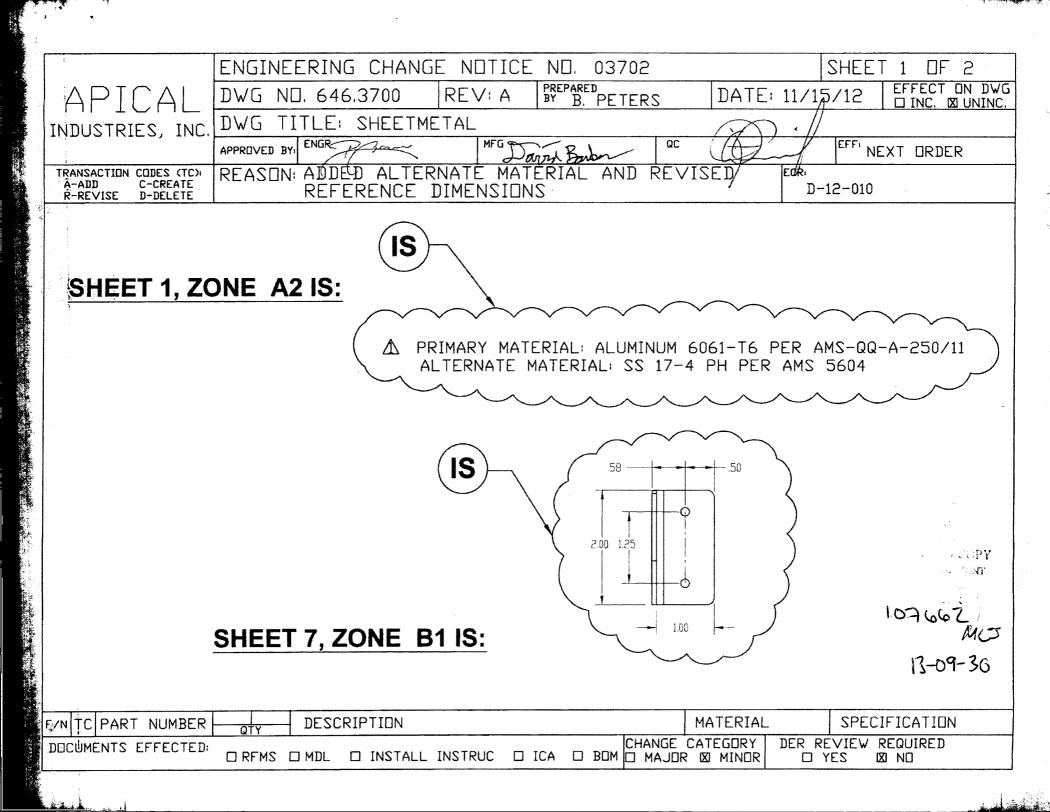
DART AEROSPACE LTD	Work Order:	10+662
Description: Strut Doubler	Part Number:	646.3715
Inspection Dwg: 646.3700 Rev: A		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.50	+/-0.005,03	2.51			V	JKM-01
2.50	+/-0.005 ,03	0.50	/		V	
0.040	+/-0.005,01	10.37			V	
			1			
		· .				
			DAS			
sured by:	le	Audited by:	27		Preliminary	Approval:

		DAS	
Measured by:	Audited by:	27	Preliminary Approval:
Date: 13.11.02	Date:	13 II CU	Date:

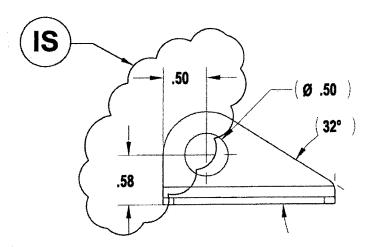
Rev	Date	Change	Revised by	Approved
Α	13.03.04	New Issue	KJ +	/\$ <u>/</u>
			()	•



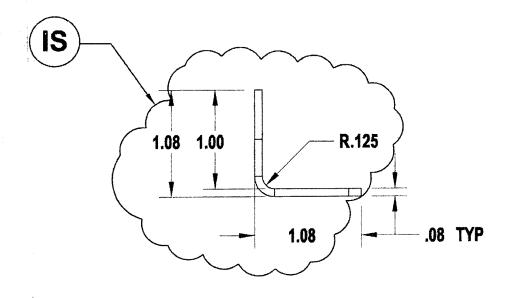
APICAL INDUSTRIES, INC.

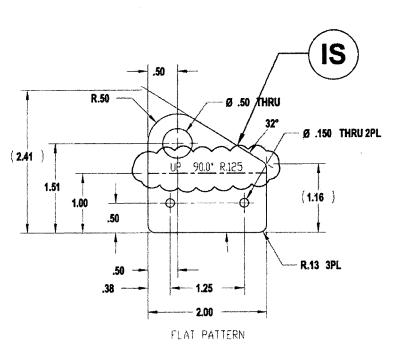
ENGINEERING CHANGE ORDER NO. 03702

SHEET 2 DF 2



## SHEET 7, ZONE C4 IS:





SHEET 7, ZONE B7 IS:

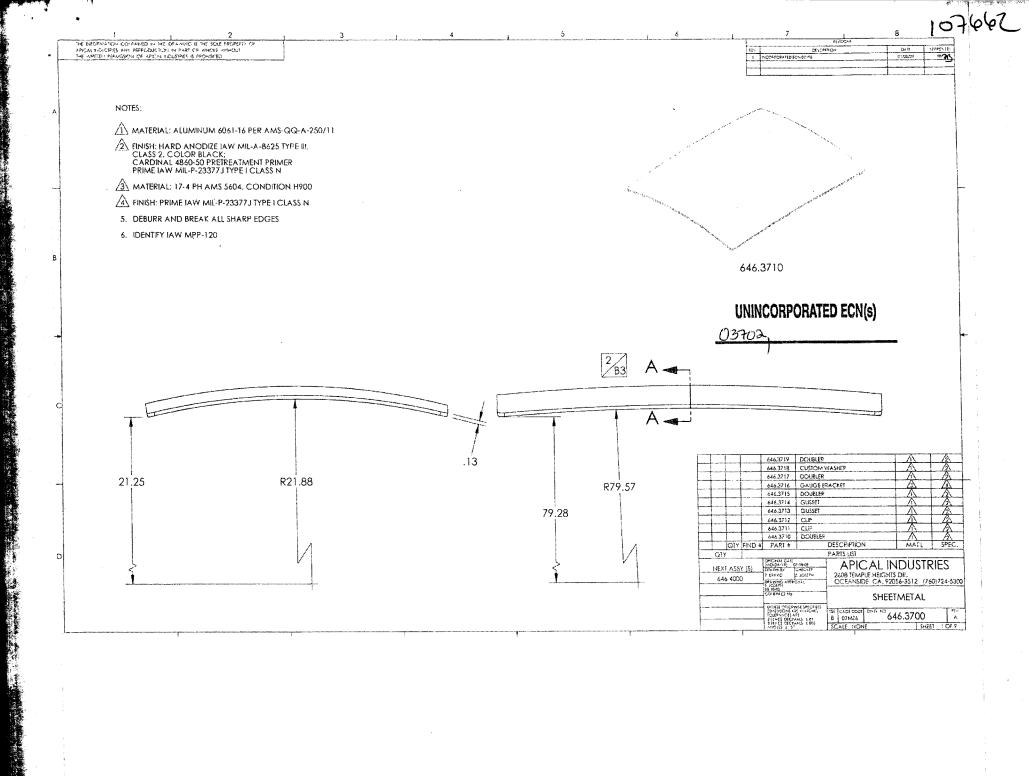
## SHEET 7, ZONE D1 IS:

FIN TO PART NUMBER

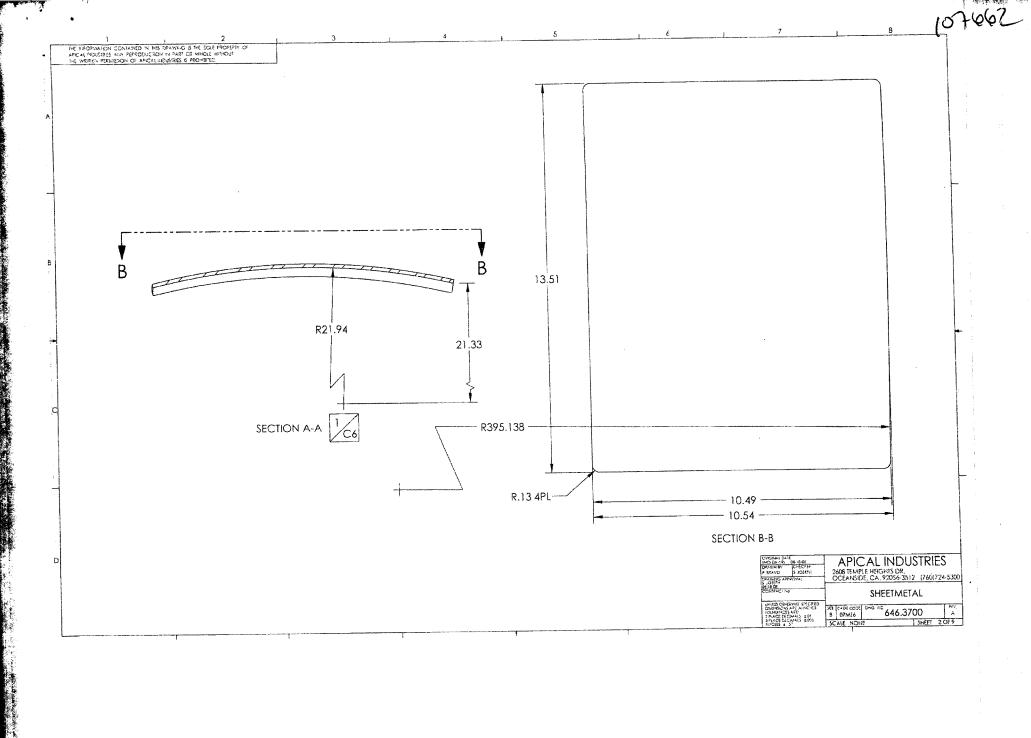
QTY

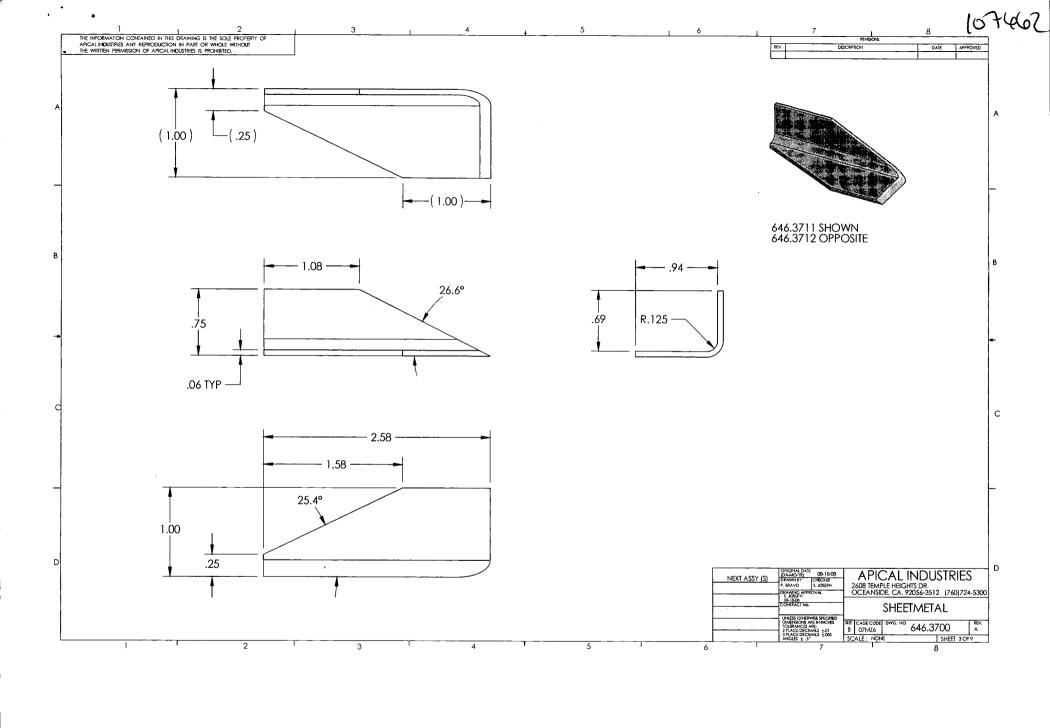
DESCRIPTION

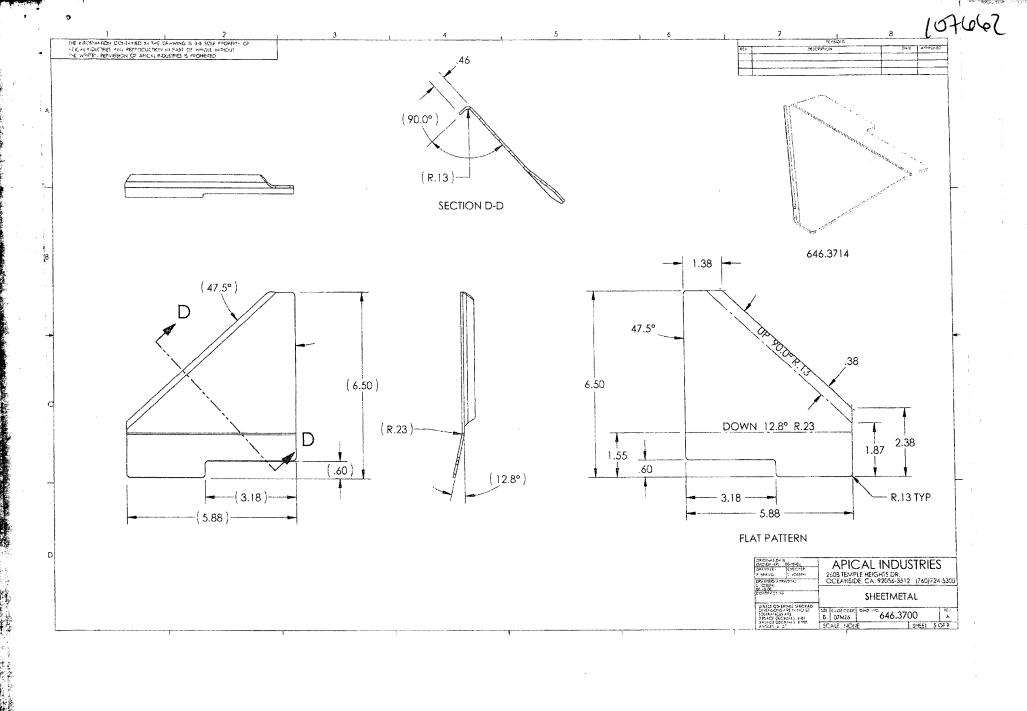
MATERIAL/SPECIFICATION

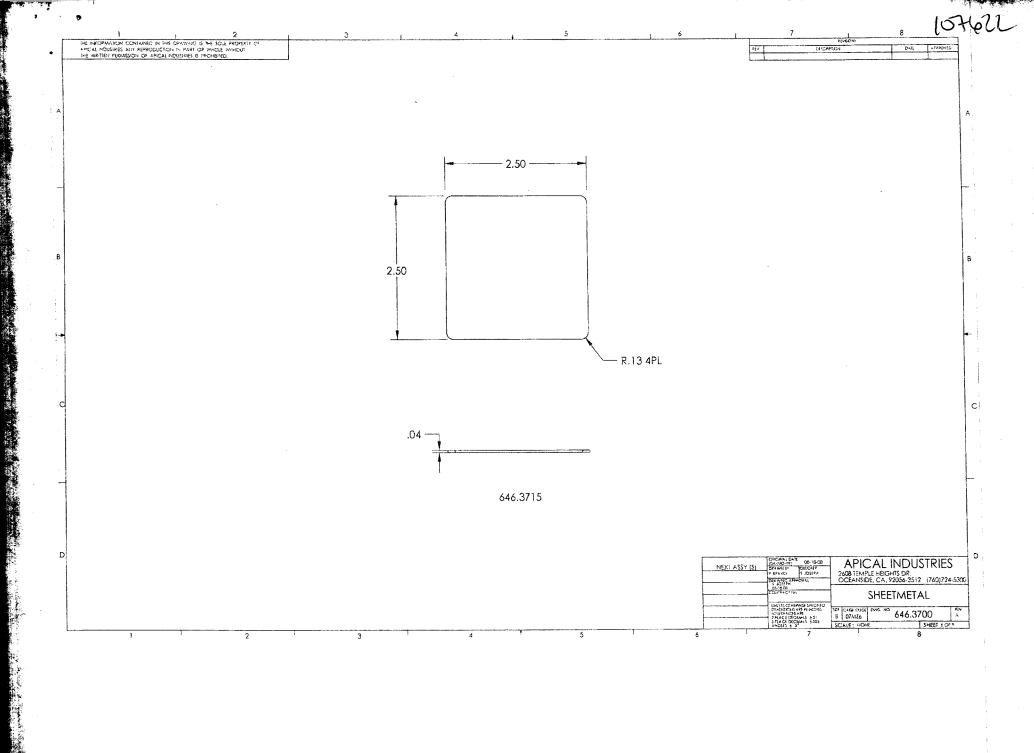


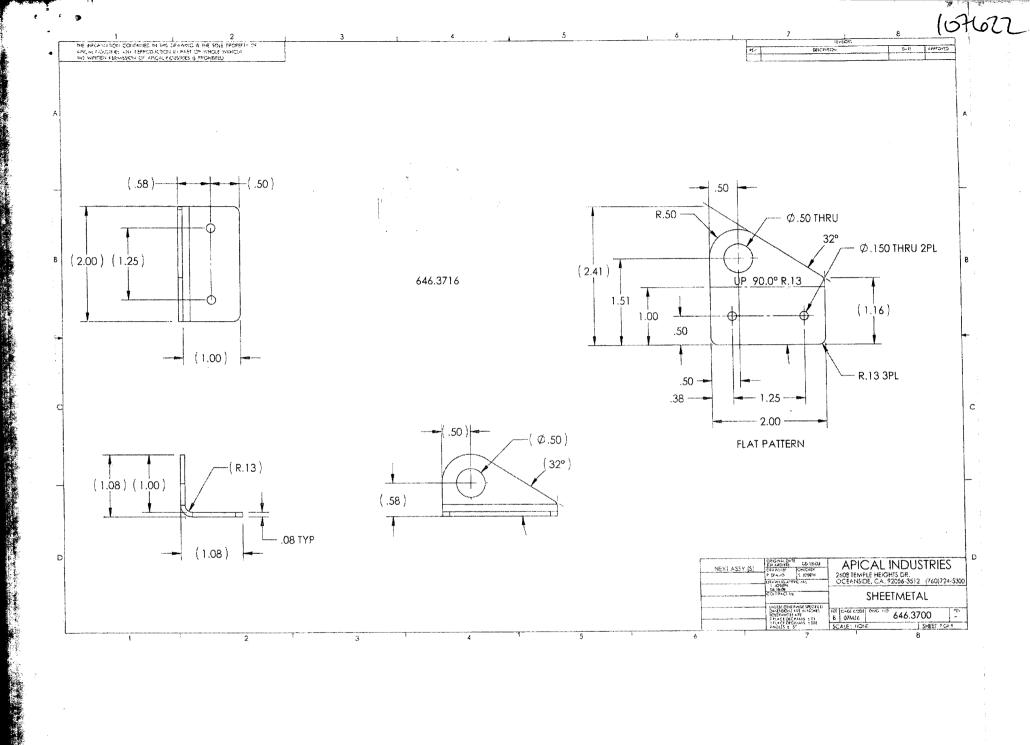
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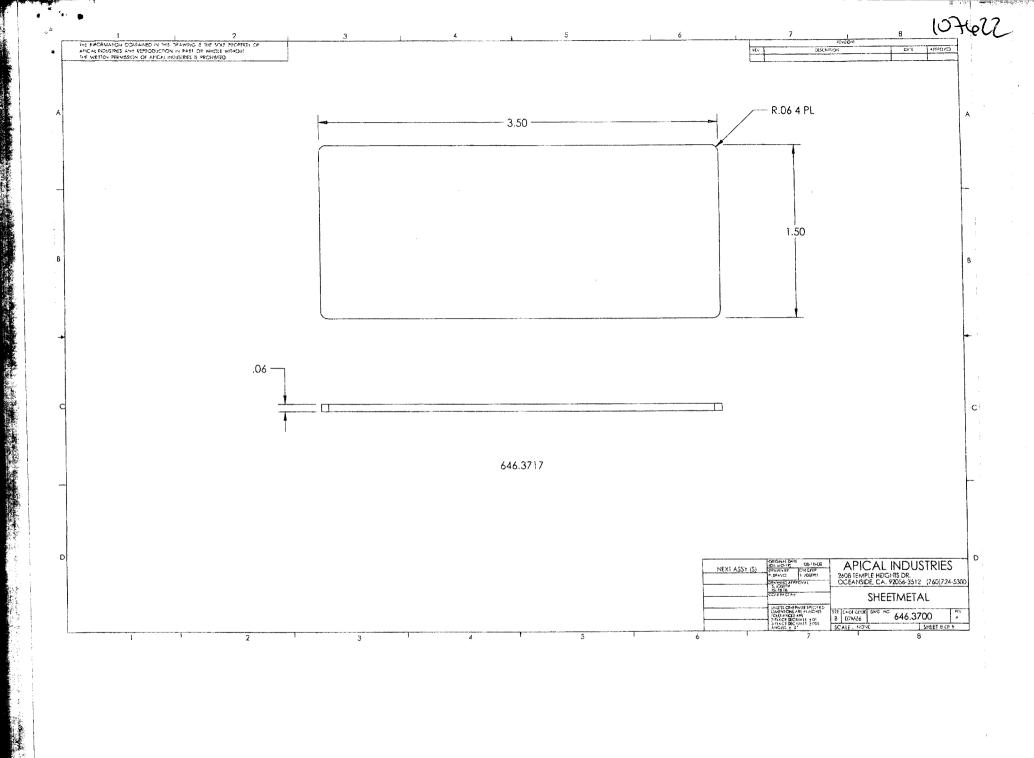


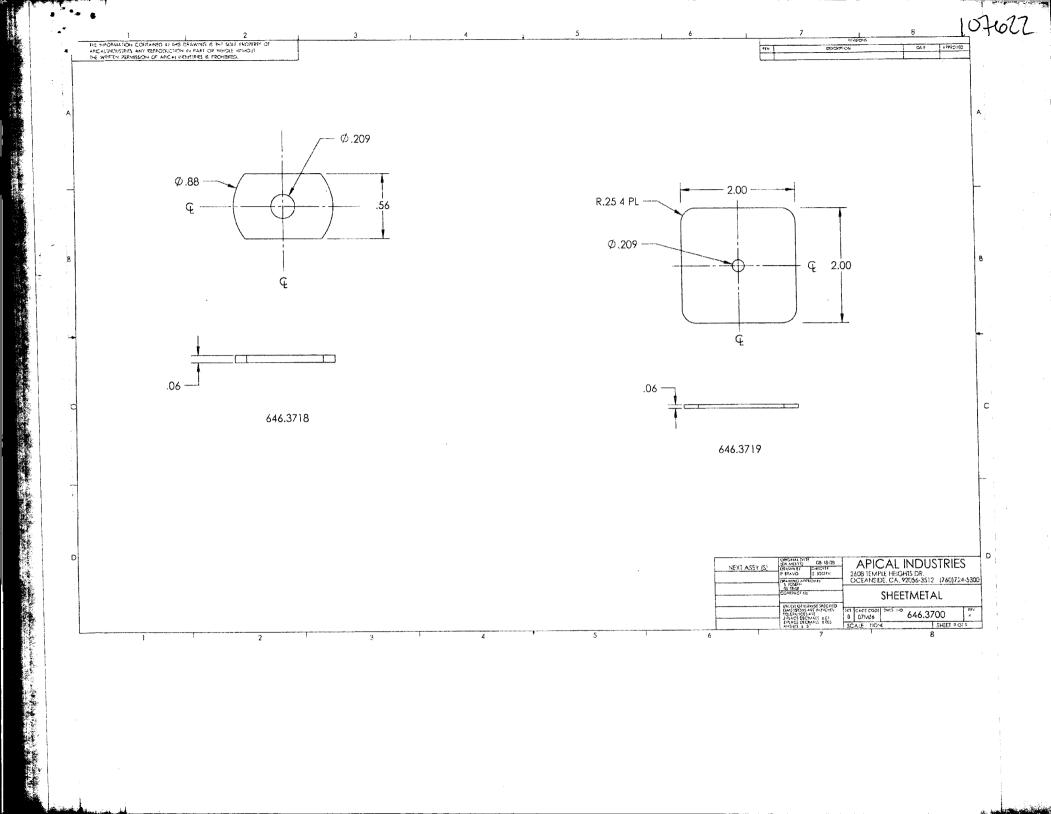














A.T.G. Industries Inc. 731, rue Industrielle Rd. PLATING DEPARTMENT Rockland, On K4K 1T2 Canada

Ph: (613) 446-4544 Fax: (613) 446-4556

## Pack List

Number: 62753

Date: 22-Nov-13

То

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 Canada Ship To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7

Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

		1				
Terms		Ship Via				
Quantity	Description					
1	Part: ASST		Rev:			
lot						
	10 PCS 646.3312 (12.05) 12 PCS 646.3010 (10.25) 6 PCS 646.3310 (18.10) 2 PCS 645.3110 (10.65) 4 PCS 646.3810 (6.55) 32 PCS 646.3715 (6.70) 38 PCS 646.3718 (3.95) 6 PCS 646.9812 (22.80) HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLAS	₽₽ SN				
	DDICE IS DED DIECE					
	PRICE IS PER PIECE Job: 20130724	PO: 21915	Line:			
	Certificate of Conformance					
	A.T.G. Industries certifies that all items in with all requirements, specifications and ISO 9001 : 2008 REG ATG SALES-2010 TE DATE : 22/11/13  CERTIFIED SIGNATURE :	n this shipment are in order of the drawings referenced in a state of the drawings referenced in the d				
	·					